

20. ABSTRACT OF THE DISCLOSURE

An offset-difference coding process for data encoding and decoding wherein for each of the paired input data, the encoding process first determines the greater of the two input data, then calculates the difference between the two input data, replaces the larger input data with the calculated difference, and encodes the calculated difference and the smaller input data. The offset-difference coding process also generates an indicator if the larger input data that is replaced by the calculated difference is not statistically larger than the smaller input data. A composite offset-difference coding process for data encoding and decoding further compares the calculated difference with either a predetermined first threshold or a predetermined second threshold in response to whether the larger input data is statistically larger than the smaller input data, and determines whether to replace the larger input data with the calculated difference in response to whether the calculated difference exceeds the predetermined threshold. The composite offset-difference coding process also generates an identifier if the calculated difference does not exceed the threshold as well as an indicator if the larger input data that is replaced by the calculated difference is not statistically larger than the smaller input data.